

LAC Meeting #6

Thank you for joining us!
The webinar will begin shortly.

Before we begin, please note:

- The public audience will automatically be placed on mute
- Those providing comments on agenda items during the public comment period will be unmuted at the proper time
- The webinar is being recorded. A video link will be made available at www.honolulu.gov/opala/newlandfill

AGENDA

1

**CALL TO ORDER
ROLL CALL
PUBLIC COMMENT PERIOD**

2

**APPROVAL OF
MEETING 5
MINUTES**

3

**PRESENTATION, DISCUSSION
AND ACTION**
Landfill Location and
Drinking Water Protection

4

**ANNOUNCEMENTS
AND
ADJOURNMENT**

PRESENTATION AND DISCUSSION
Potential Landfill Sites
Subjective Evaluation and Scoring Methodology

LANDFILL ADVISORY COMMITTEE



Steven Chang

Environmental Regulation



Suzanne Jones

Solid Waste



Ken Kawahara

Professional Engineer
Civil Engineering



Emmett Kinney

General Contracting



Brennon Morioka

Professional Engineer
Civil Engineering



James Nakatani

Agribusiness Development



Cynthia Rezentes

Classical Electrical Engineering
Community Advocate



Trisha Kehaulani Watson

Environmental Justice
Cultural Resources

MEETINGS



ORAL PUBLIC COMMENTS

- ❖ 2 minutes per person
- ❖ Registered commenters first, then any unregistered commenters (raise hand on Webex, *3 on phones)
- ❖ When called upon, you will be unmuted
- ❖ Please state your name and agenda item on which you are speaking

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Approval of Prior Meeting Minutes

- LAC Meeting #5 – February 7, 2022

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DOH Safe Drinking Water Branch Drinking Water Well 10-Year Composite Capture Zones





BWS Documents Provided

- BWS Resolution No. 427
- BWS Resolution No. 502
- Appendices to 2012 MACLSS Report
- BWS Letter to ENV



Board of Water Supply Introduction

Landfill Location and Drinking Water Protection Discussion

OPEN TO THE COMMITTEE

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Subjective Evaluation and Scoring Methodology



Figure 1
Oahu Landfill Siting Study
Overview of Potential Landfill Sites

Legend

 Potential Landfill Site



Figure 2
Oahu Landfill Siting Study
Overview of Potential Landfill Sites
with Restrictions

Legend

- Potential Landfill Site
- Federal Lands
- Developed and Undevelopable Lands
- Tsunami Evacuation Zone Restriction
- Conservation District Land Restriction
- Airport Buffer Restriction
- ½ Mile Residential Buffer Restriction
- The Waimānalo Gulch Sanitary Landfill

Figure 3
Oahu Landfill Siting Study
Location of Area 2, Site 1

Legend

 Potential Landfill Site



0 0.5 mi



Figure 4
Oahu Landfill Siting Study
Locations of Area 3,
Site 1 / Area 3, Site 2 / Area 3, Site 3

Legend

 Potential Landfill Site



0 0.5 mi

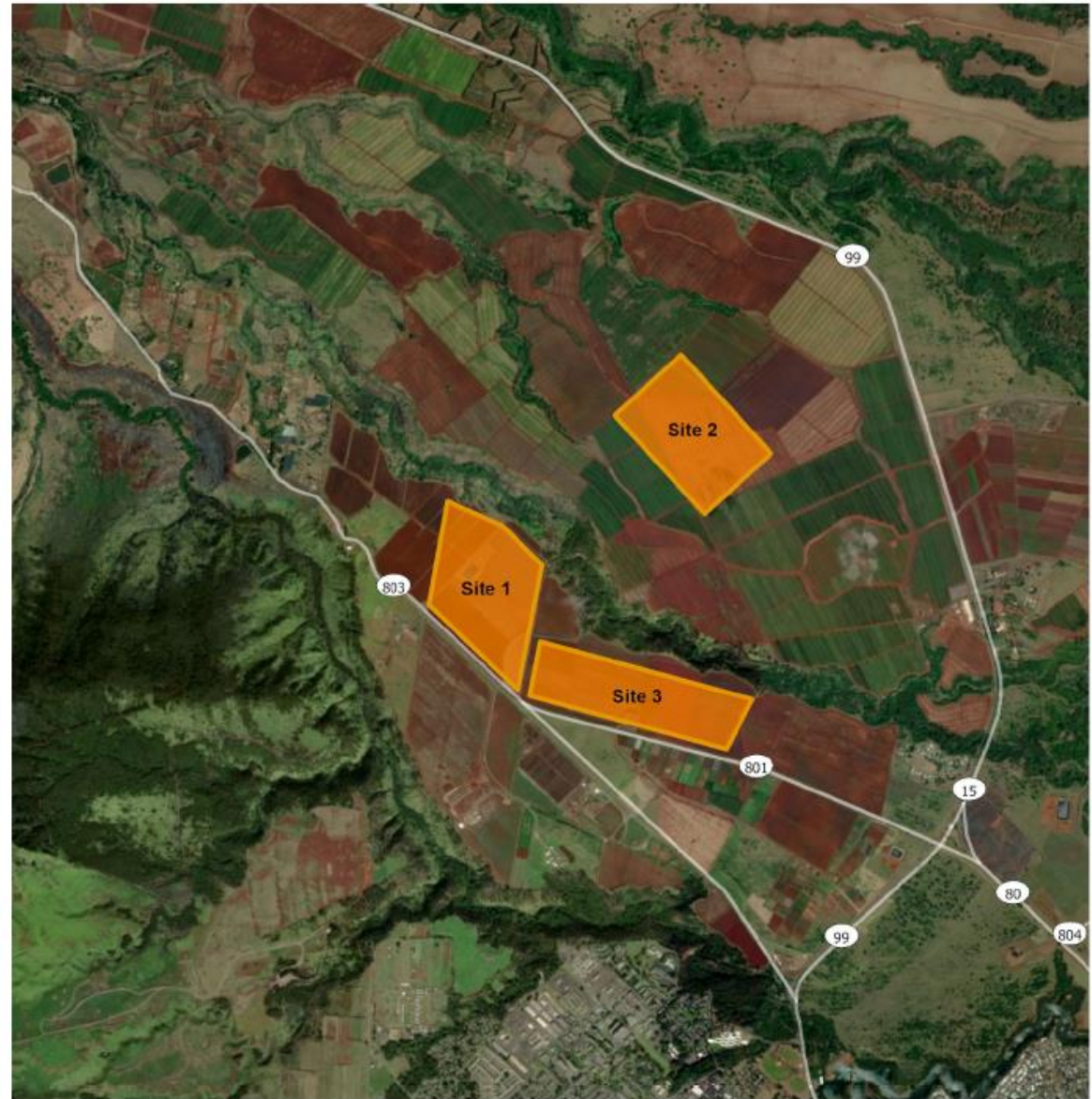


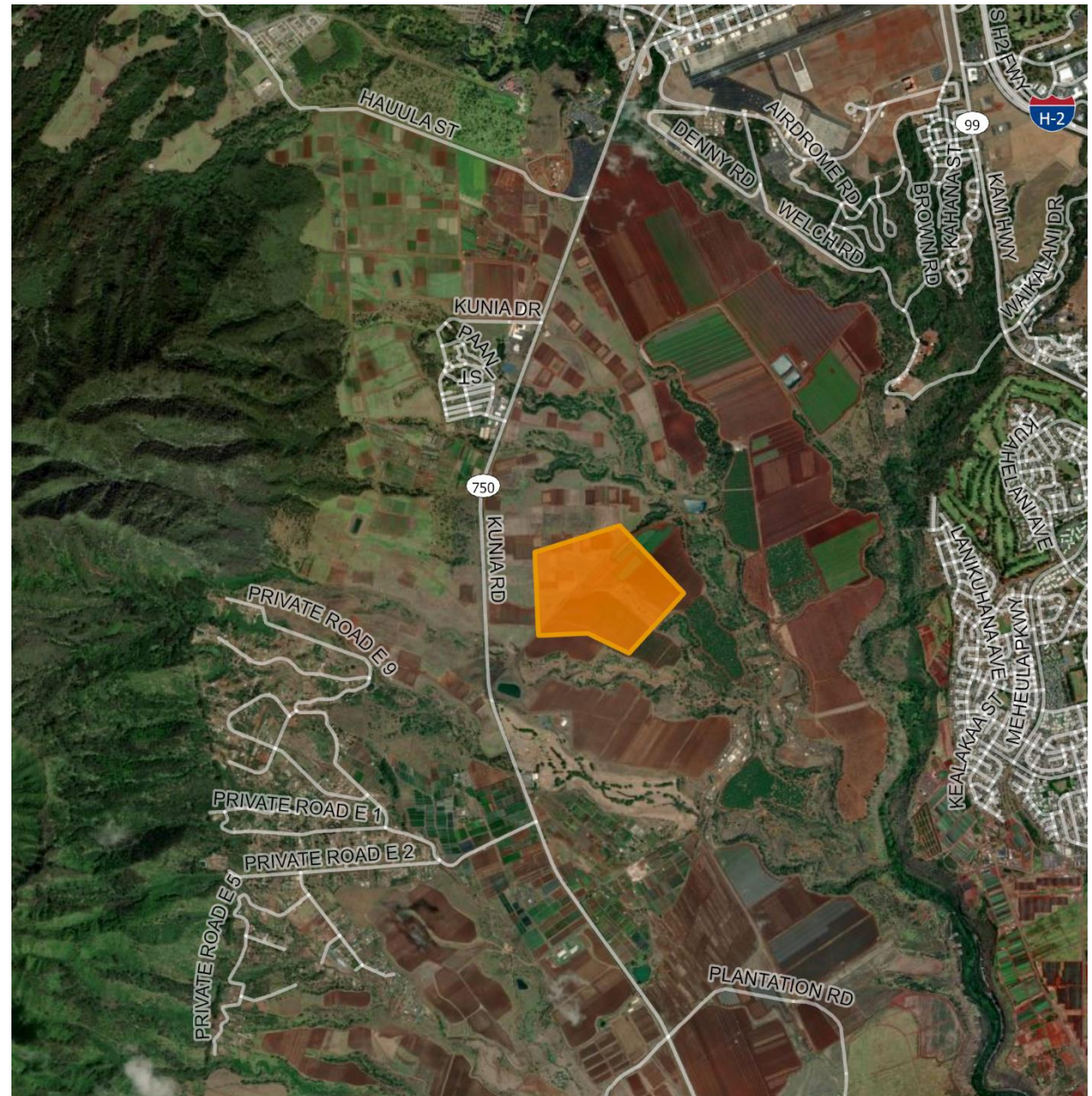
Figure 5
Oahu Landfill Siting Study
Location of Area 6, Site 1

Legend

 Potential Landfill Site

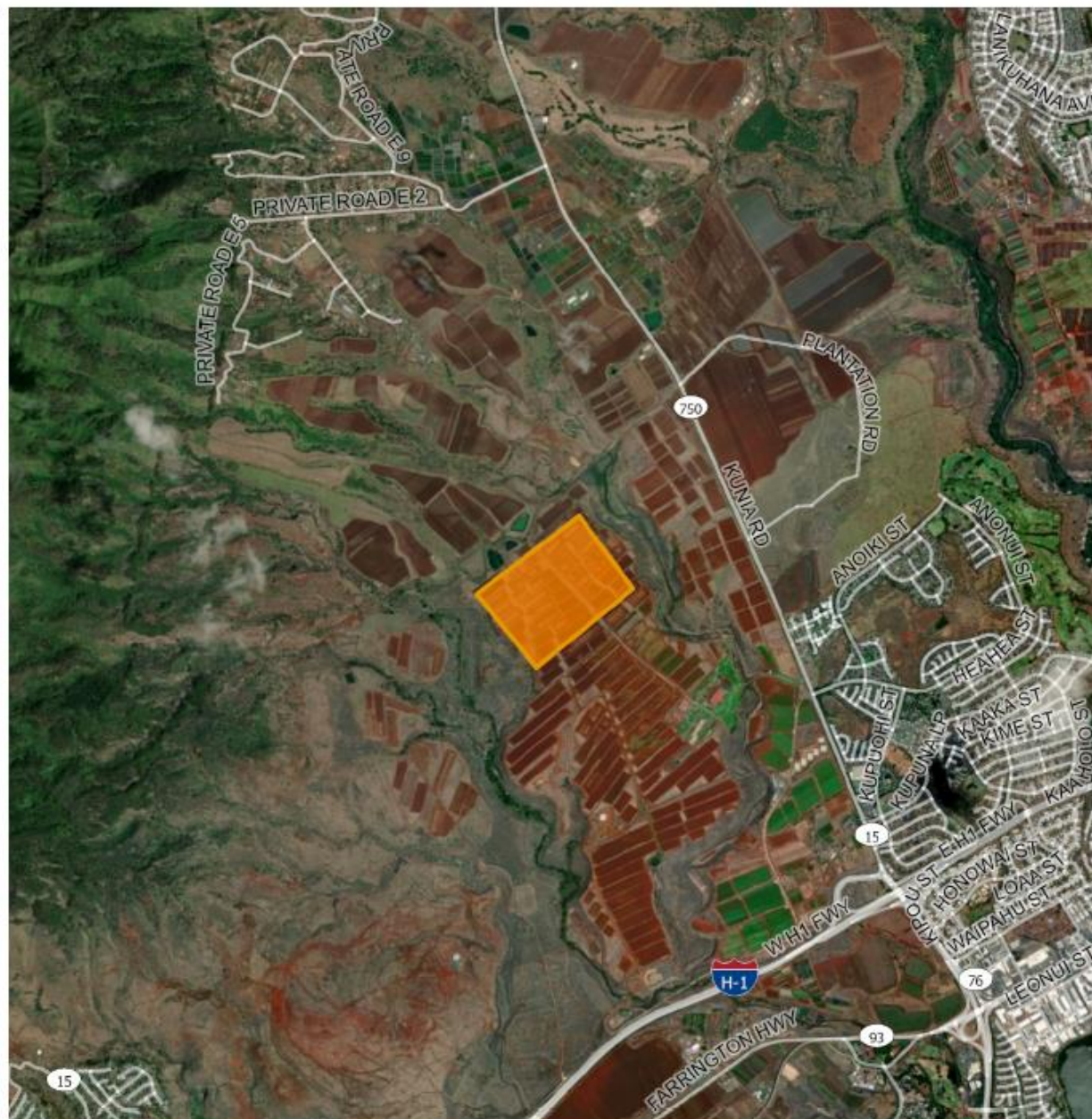


0 0.5 mi



Legend

A map of the island of Oahu, Hawaii, with a light blue background. The island is shown in white. A black rectangle is drawn on the western side of the island, labeled "DETAIL MAP EXTENT". To the east of this rectangle, the locations "Pearl City", "Kailua", and "Honolulu" are labeled in black text.



Potential Landfill Sites Discussion

OPEN TO THE COMMITTEE

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Landfill Location and
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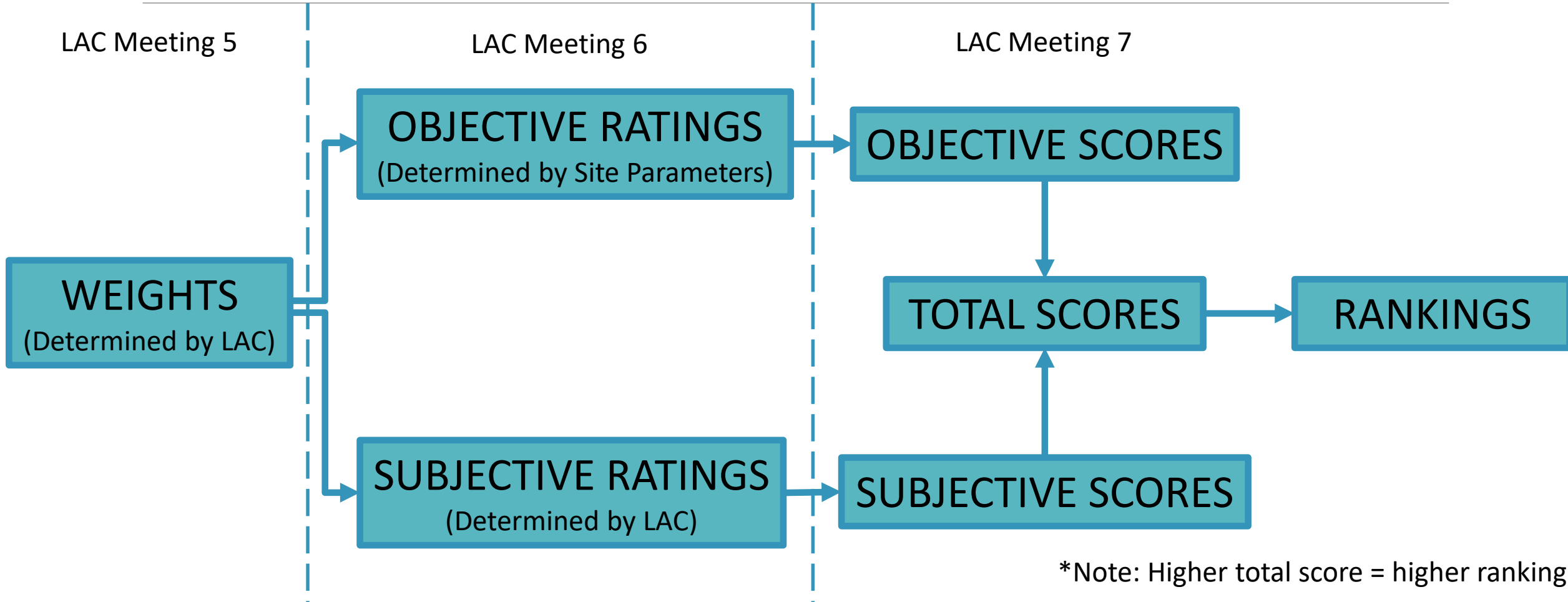
4

**ANNOUNCEMENTS
AND
ADJOURNMENT**

PRESENTATION AND DISCUSSION
Potential Landfill Sites

Subjective Evaluation and Scoring Methodology

Evaluation Process Flow



Criteria Weights

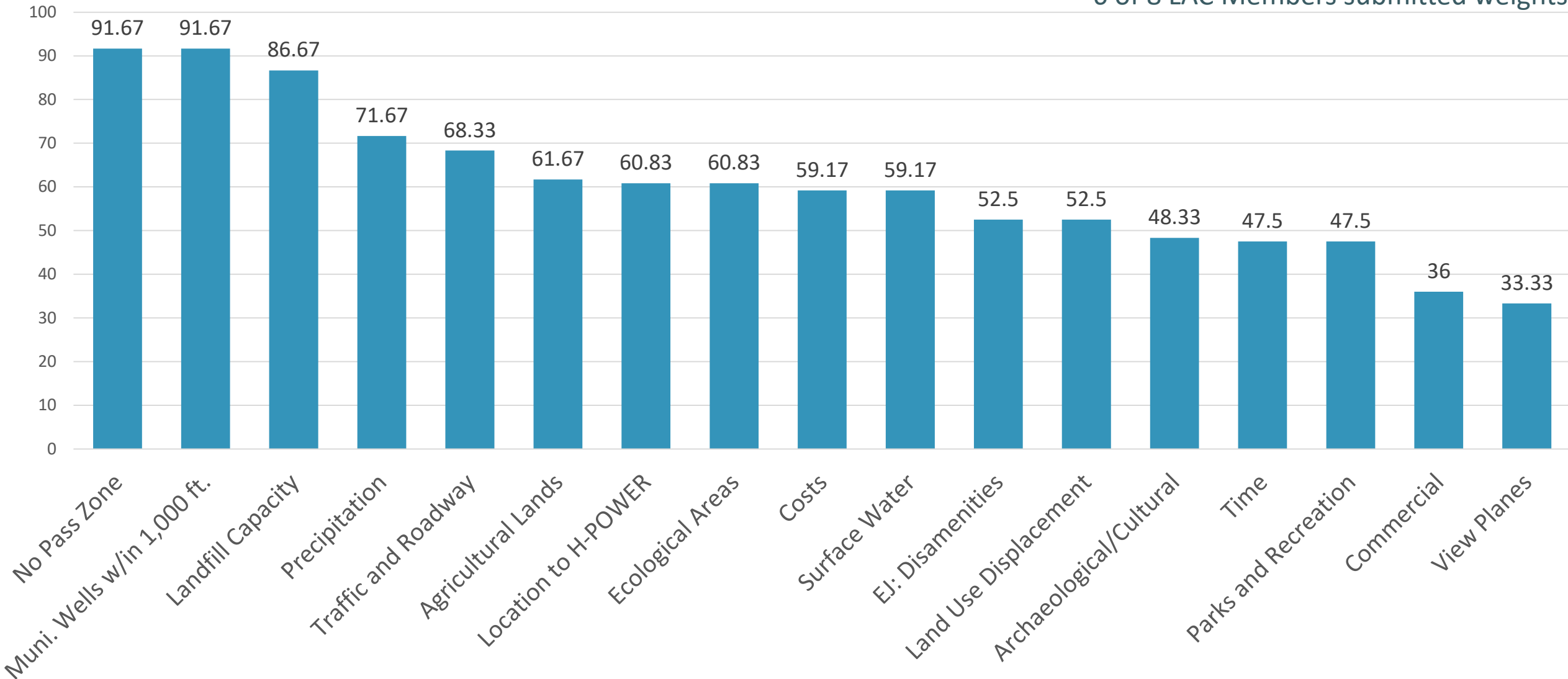
Criteria	Ave. Weight
No Pass Zone	91.67
Muni. Wells w/in 1,000 ft.	91.67
Landfill Capacity	86.67
Precipitation	71.67
Traffic and Roadway	68.33
Agricultural Lands	61.67
Location to H-POWER	60.83
Ecological Areas	60.83

Criteria	Ave. Weight
Costs	59.17
Surface Water	59.17
EJ: Disamenities	52.50
Land Use Displacement	52.50
Archaeological/Cultural	48.33
Time	47.50
Parks and Recreation	47.50
Commercial	36.00
View Planes	33.33

*6 of 8 LAC Members submitted weights

Average Criteria Weights

*6 of 8 LAC Members submitted weights



Rating

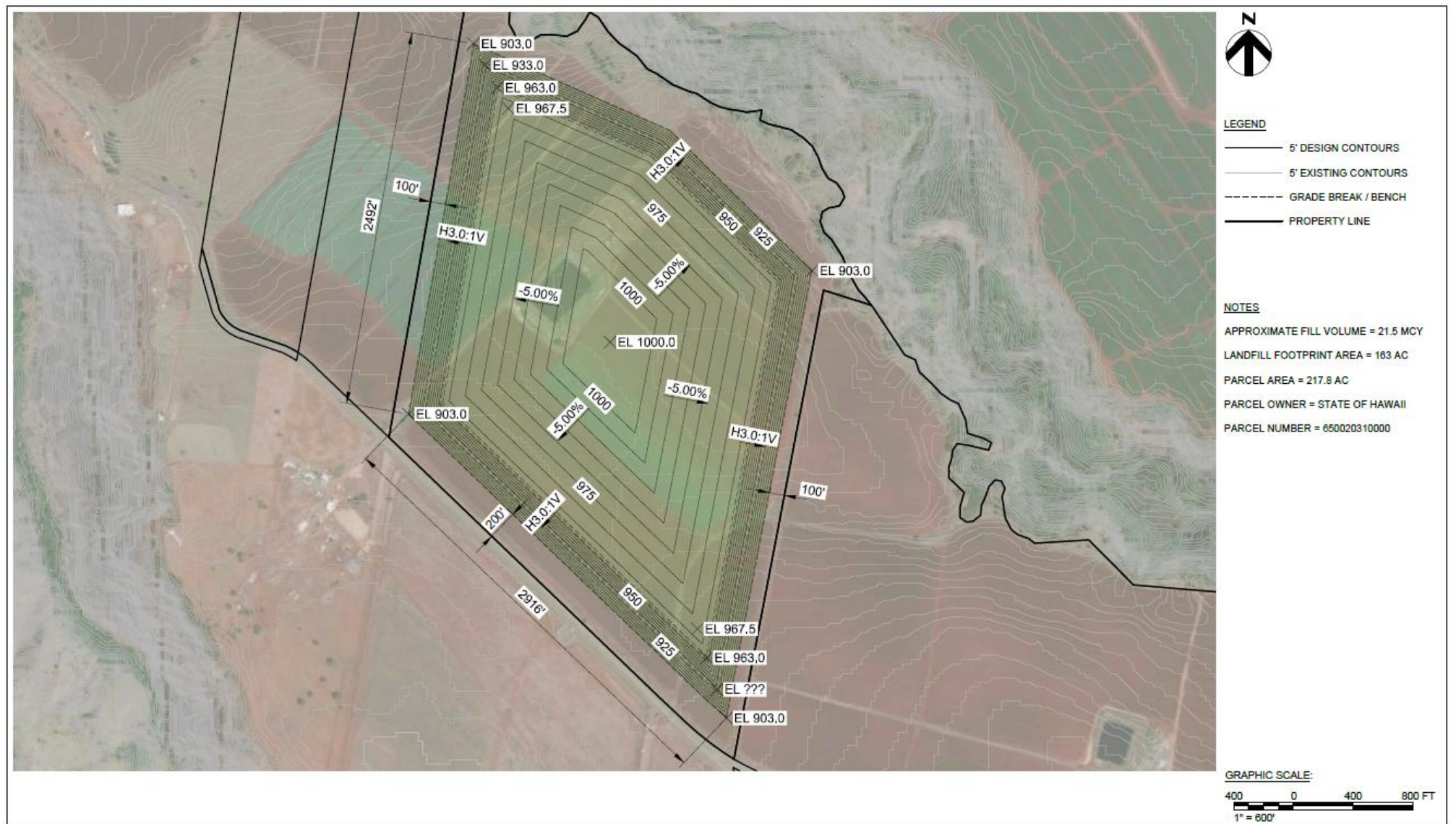
- Numerical value assigned to each site based on the favorability of the site
- Minimum numerical value = 0
- Maximum numerical value = 6
- Whole number values only
- Sites can have equal ratings
- Average ratings per site used in score calculation

Types of References

Site Location Figures

Examples of Supporting Documents

Conceptual Grading Plan and Parcel Information



**OAHU LANDFILL SITING STUDY
AREA 3, SITE 1**

CONCEPTUAL GRADING PLAN

DATE
2/20/2022

FIGURE

Oahu Landfill Siting Study
10. Land Use Displacement
Area 3, Site 2

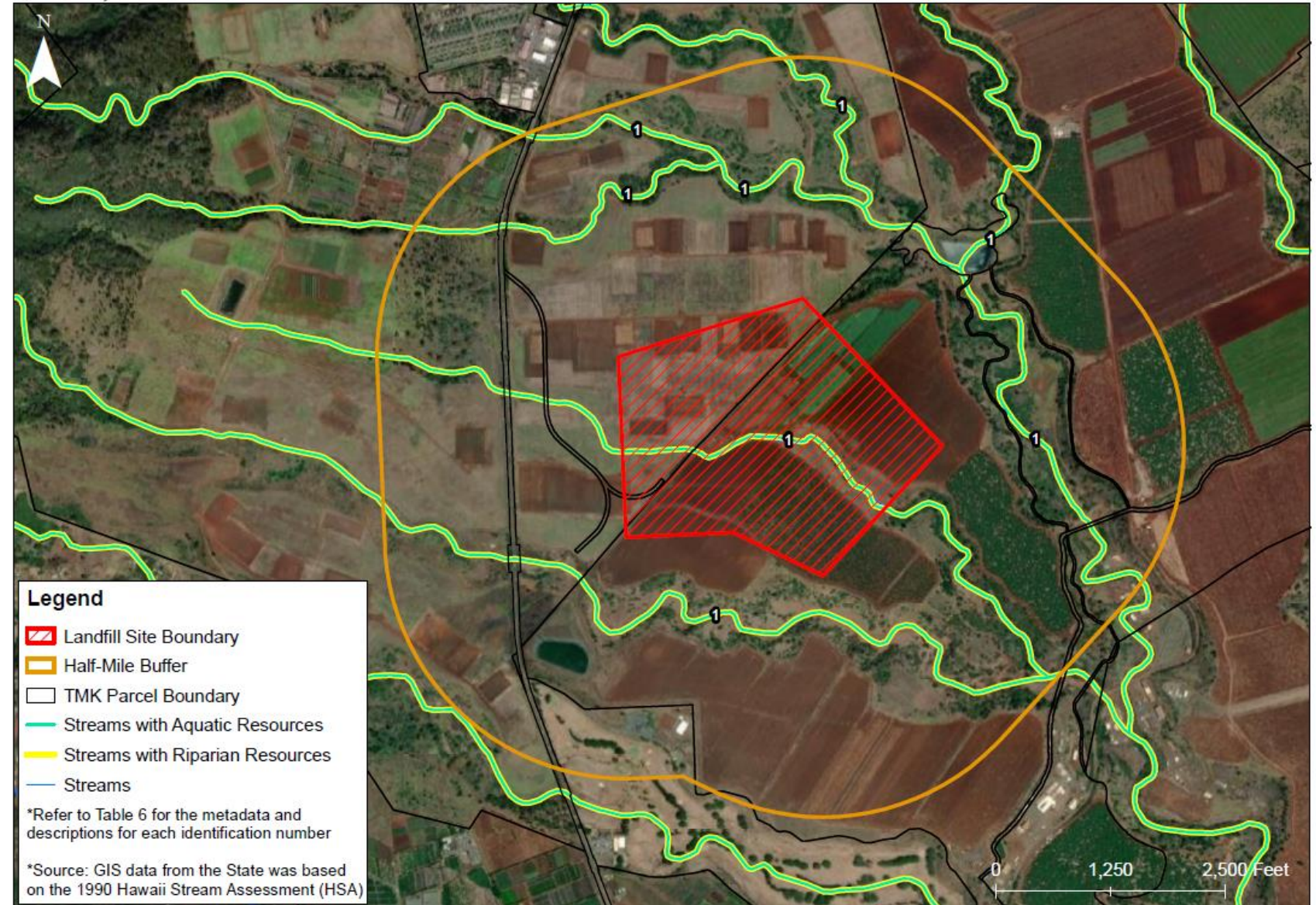
10. Land Use Displacement



Oahu Landfill Siting Study
11. Proximity to Nearby Ecologically Important Areas
Area 6, Site 1

11. Proximity to Ecologically Important Areas

Ecologically important areas are considered habitat areas or other areas where rare or native species may occur that contribute to an ecosystem's productivity, biodiversity, and resilience. None of the landfill sites are located in areas designated as Critical Habitat under the Endangered Species Act.



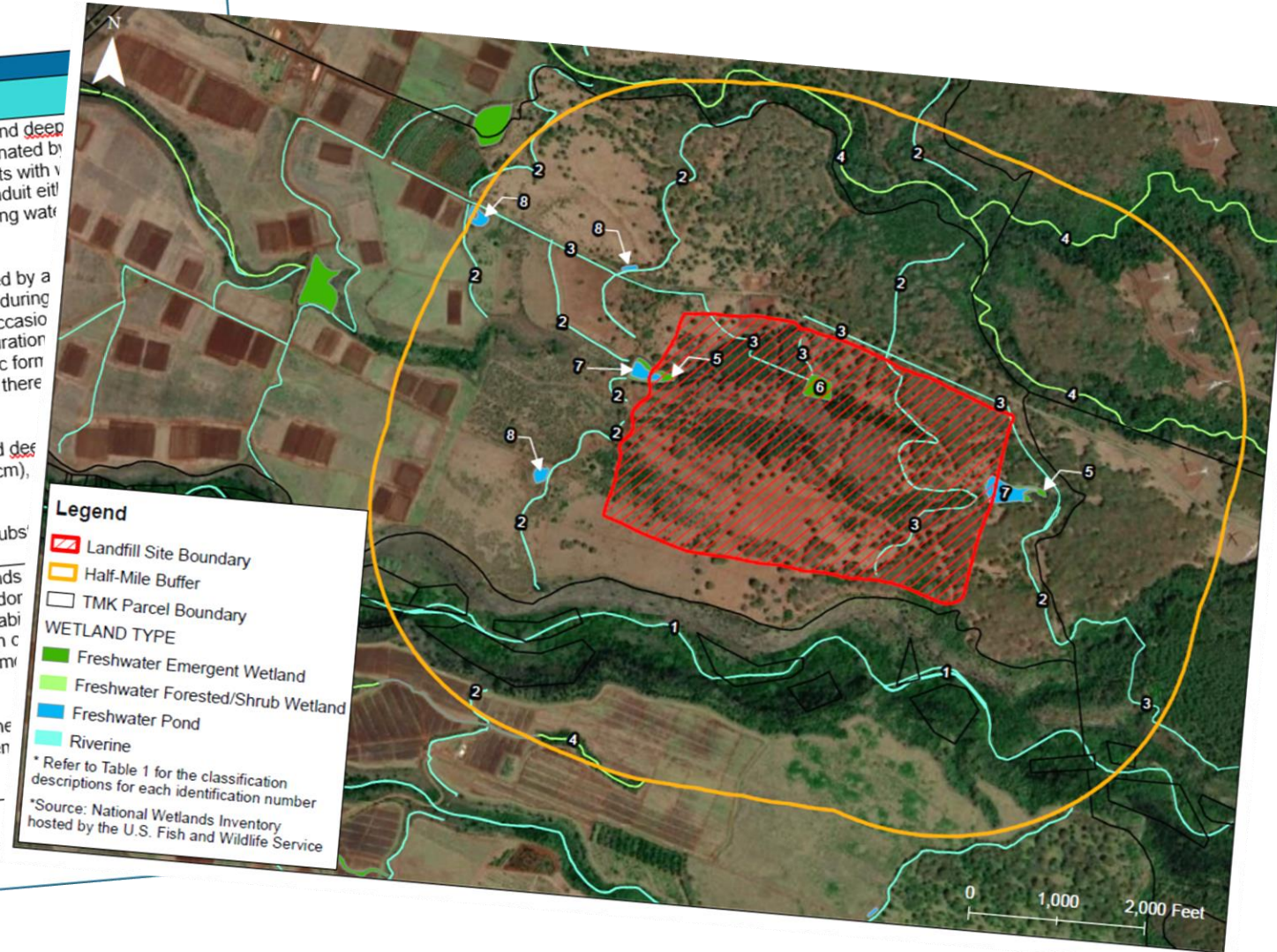
12. Proximity to Nearby Surface Water (Wetlands & Streams)

AREA 2, SITE 1

Table 1 - Wetland Classification Descriptions

Description

Number Identification	Wetland Category	Wetland Subcategory	Description
1	Riverine	R3UBH	<p>System Riverine (R) : The Riverine System includes all wetlands and deep contained within a channel, with two exceptions: (1) wetlands dominated by persistent emergents, emergent mosses, or lichens, and (2) habitats with ocean-derived salts of 0.5 ppt or greater. A channel is an open conduit either artificially created which periodically or continuously contains moving water connecting link between two bodies of standing water.</p> <p>Subsystem Upper Perennial (3) : This Subsystem is characterized by a There is no tidal influence, and some water flows all year, except during drought. The substrate consists of rock, cobbles, or gravel with occasional The natural dissolved oxygen concentration is normally near saturation characteristic of running water, and there are few or no planktonic form high compared with that of the Lower Perennial Subsystem, and there development.</p> <p>Class Unconsolidated Bottom (UB) : Includes all wetlands and der least 25% cover of particles smaller than stones (less than 6-7 cm), less than 30%.</p> <p>Water Regime Permanently Flooded (H) : Water covers the subs in all years.</p>
2	Riverine	R4SBCx	<p>System Riverine (R) : The Riverine System includes all wetlands contained within a channel, with two exceptions: (1) wetlands dominated by persistent emergents, emergent mosses, or lichens, and (2) habitats with ocean-derived salts of 0.5 ppt or greater. A channel is an open conduit either artificially created which periodically or continuously contains moving water connecting link between two bodies of standing water.</p> <p>Subsystem Intermittent (4) : This Subsystem includes channels only part of the year. When the water is not flowing, it may remain surface water may be absent.</p>



Area 2, Site 1
Table 1 - Wetland Classification Descriptions

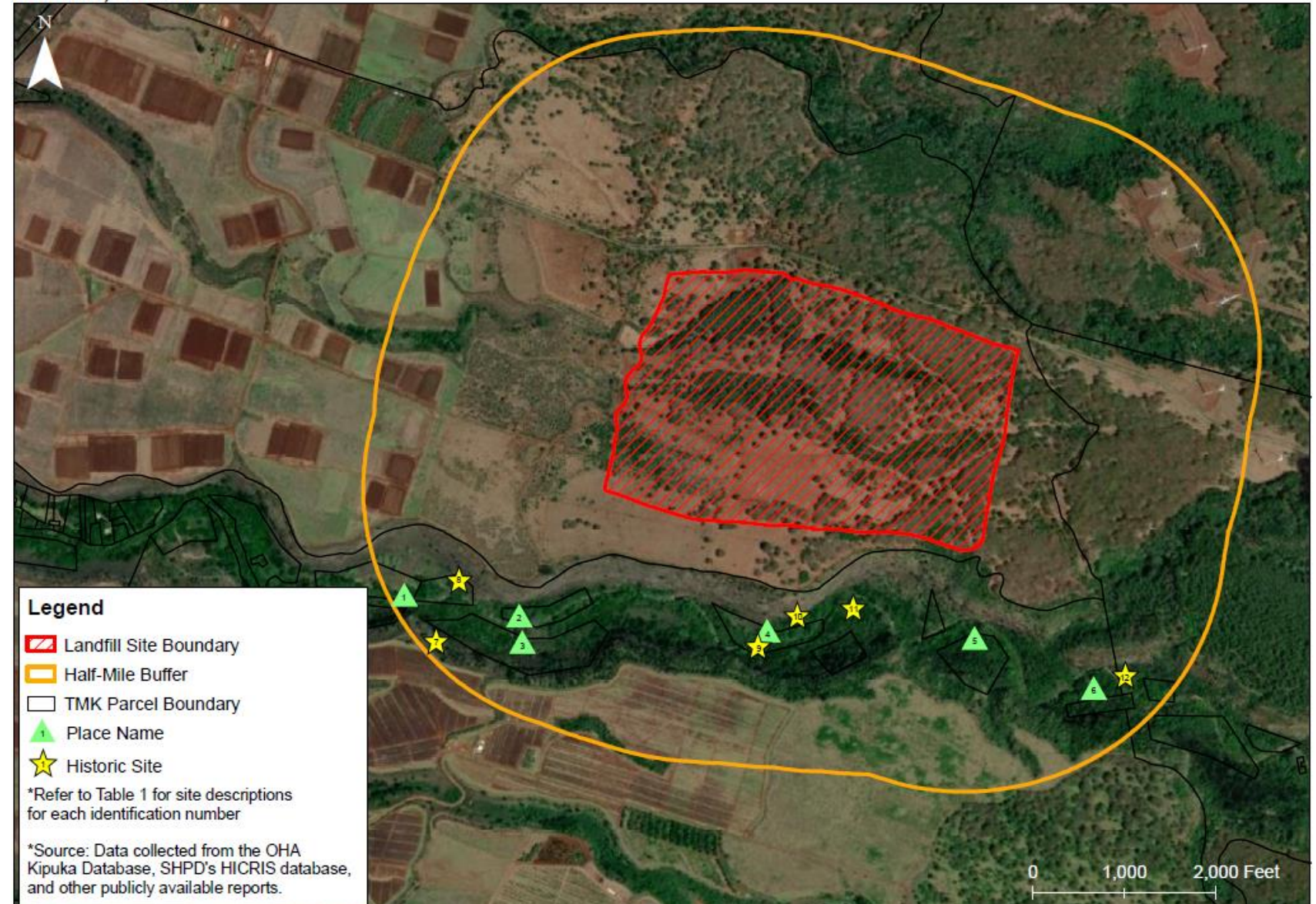
13. Proximity to Nearby Archaeological & Cultural Resources

Information for archaeological & cultural resources was gathered from the Office of Hawaiian Affairs' Kipuka Database, the State Historic Preservation Division's Hawaii Cultural Resource Information System database, and other publicly available reports. Such reports were identified through project information available on HICRIS and a search of environmental assessment documents and land use permit applications available to the public.

Oahu Landfill Siting Study

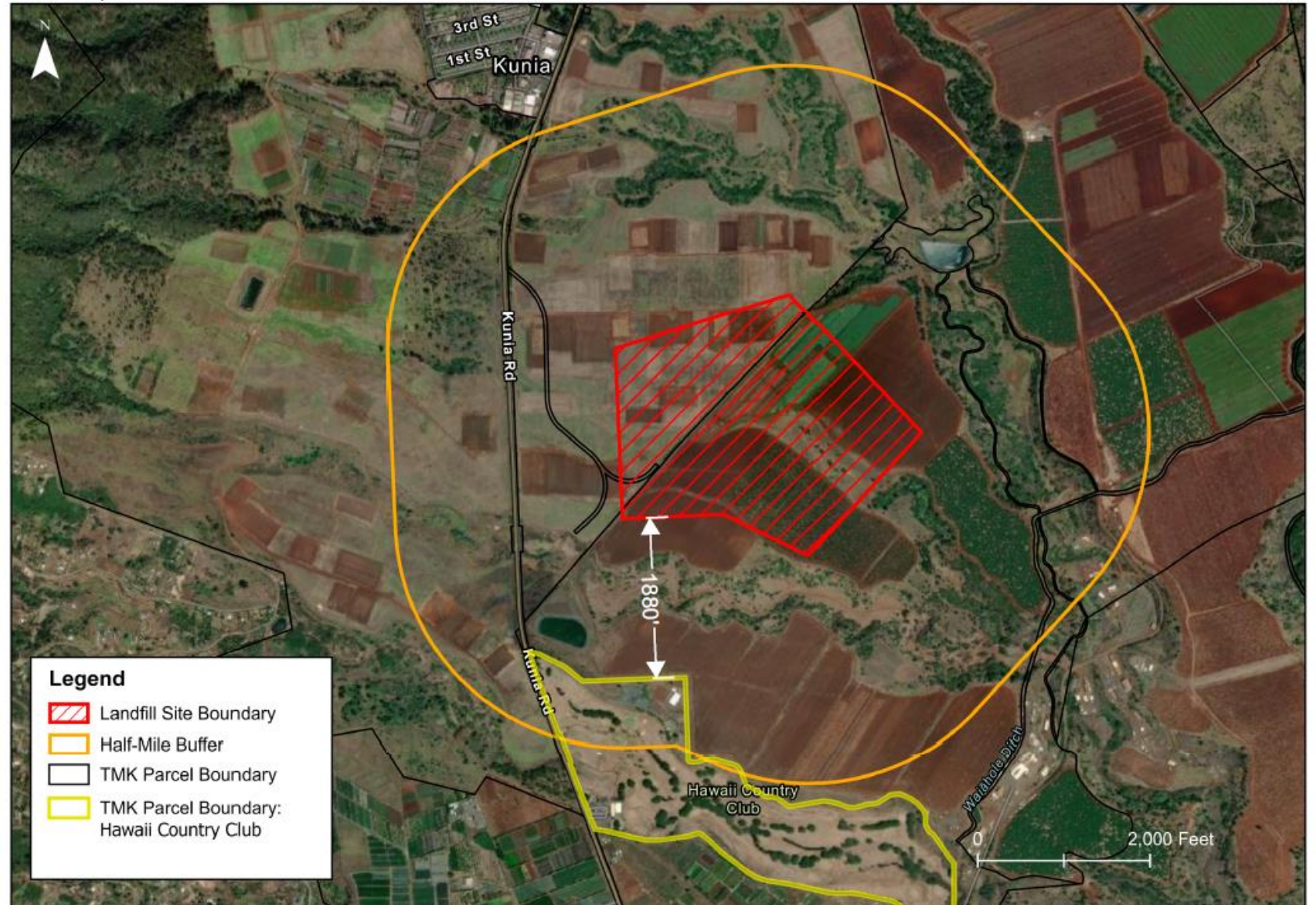
13. Proximity to Nearby Archaeological and Cultural Resources (Historic Sites)

Area 2, Site 1



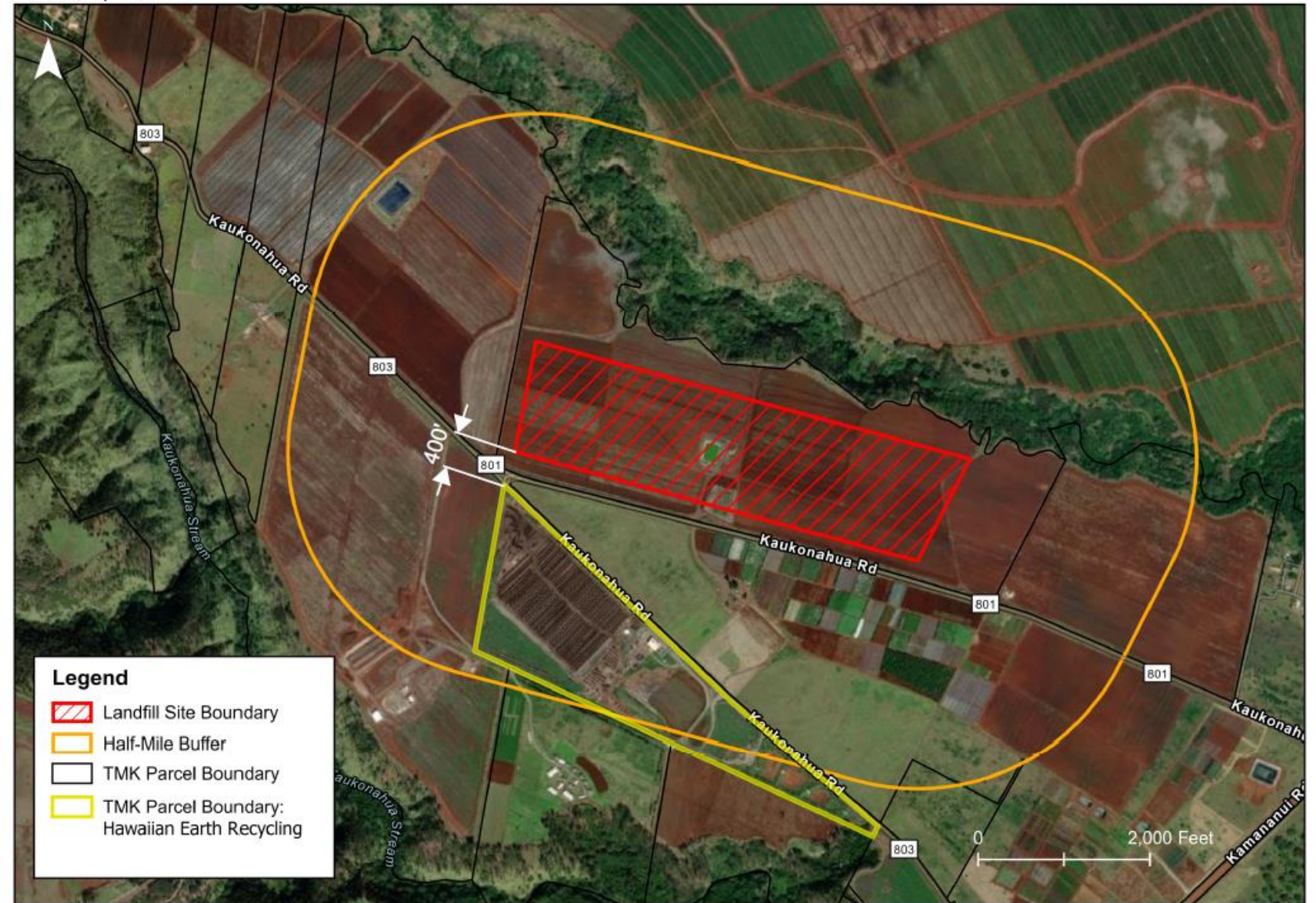
Oahu Landfill Siting Study
14. Proximity to Nearby Parks and Recreation Facilities
Area 6, Site 1

14. Proximity to
Nearby Parks and
Recreation Facilities



Oahu Landfill Siting Study
15. Proximity to Nearby Public Commercial Facilities
Area 3, Site 3

15. Proximity to
Nearby Public
Commercial
Facilities



16. Location Relative to Identified Community Disamenities

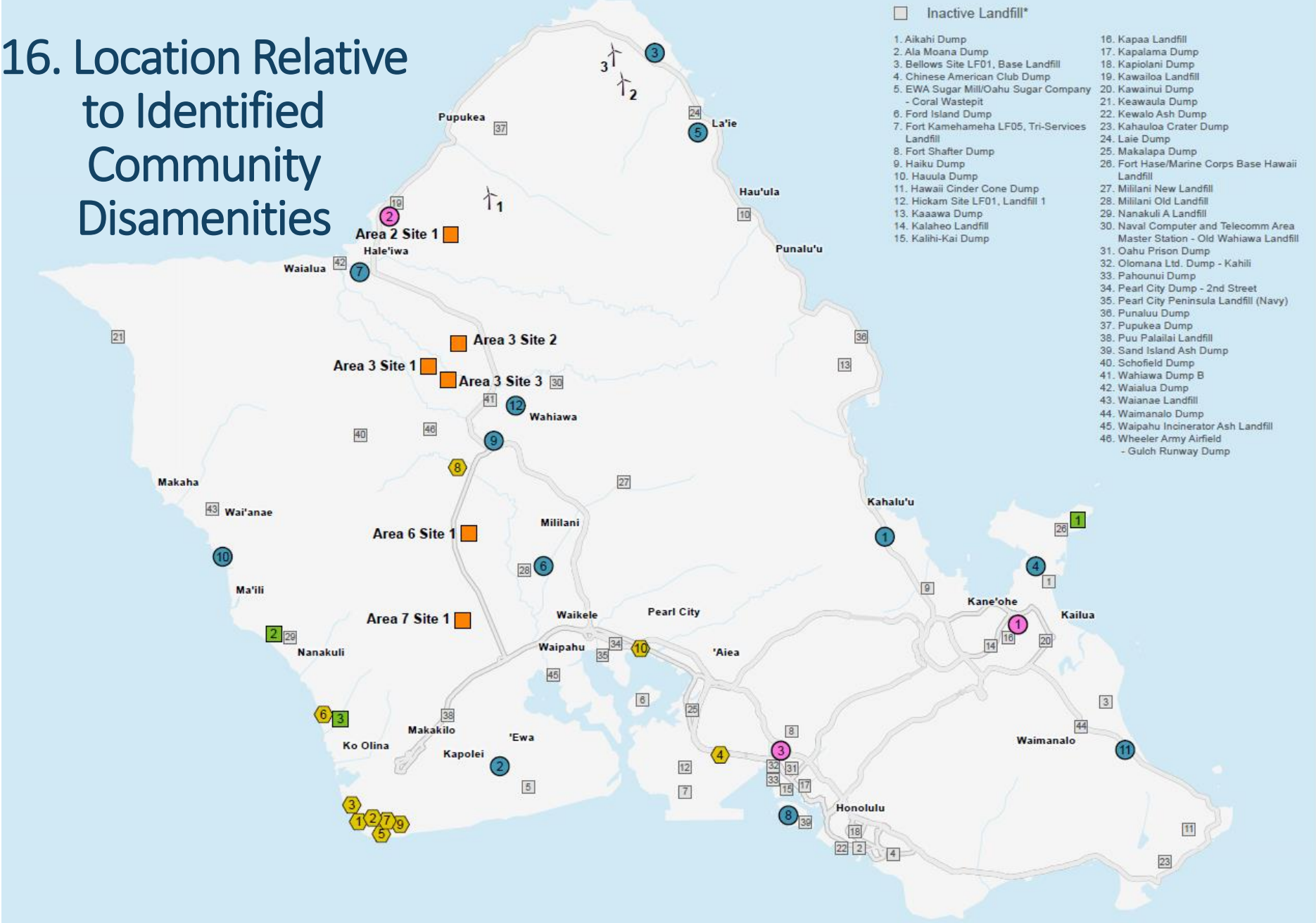


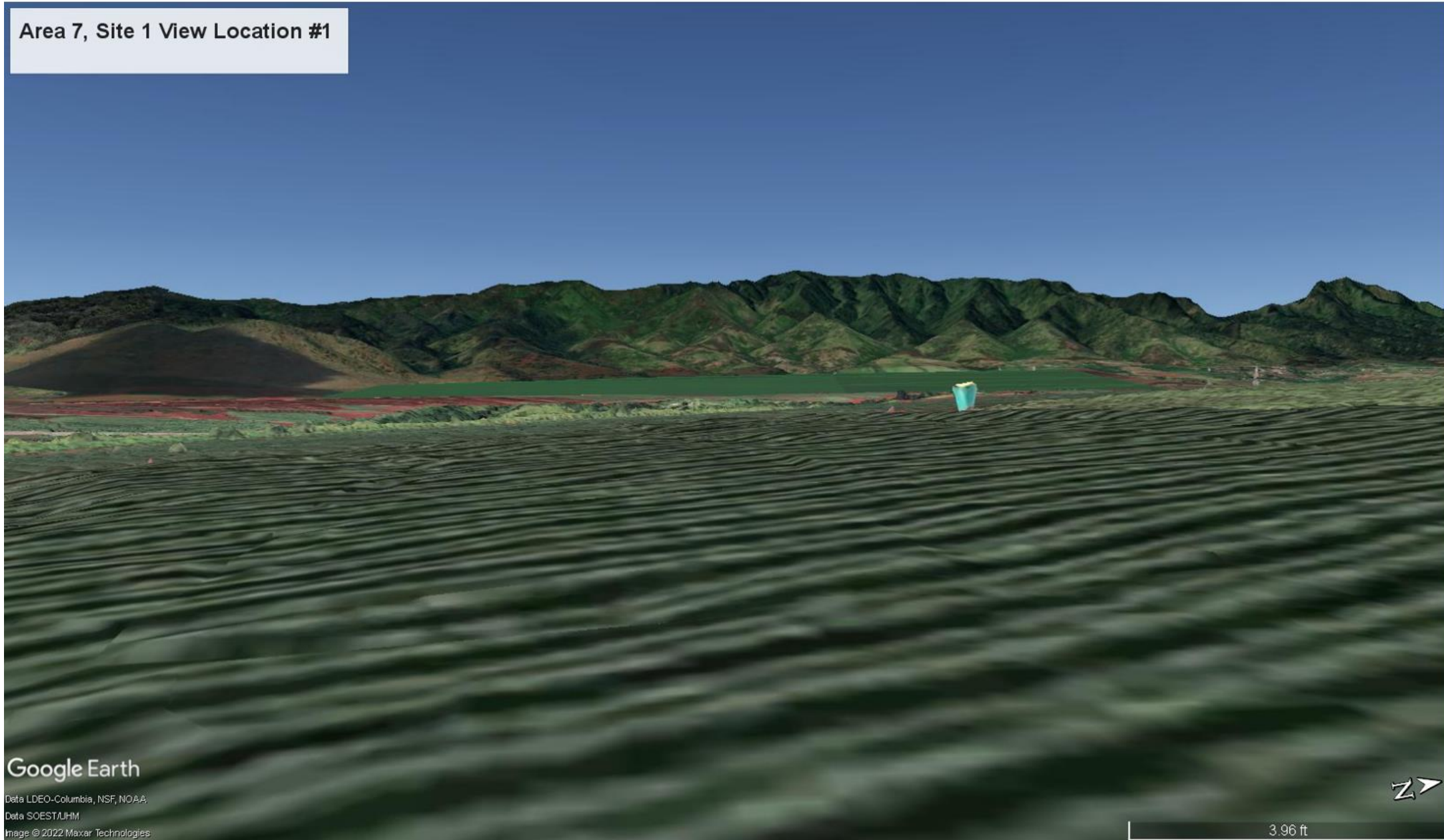
Figure 16
Environmental Justice:
Significance of Location Relative to Identified Community Disamenities

*Source: URS Corporation, Final Report: Oahu Inactive Landfills Relative Risk Investigation (Honolulu: URS Corporation, 2006) and State of Hawaii Department of Health.

17. Effect on Established Public View Planes



Area 7, Site 1 View Location #1



Google Earth

Data LDEO-Columbia, NSF, NOAA,
Data SOEST/UHM
Image © 2022 Maxar Technologies

3.96 ft



17. Effect on Established Public View Planes

Rating Assistance Form

2	Significance of Nearby Ecologically Important Areas						Ecologically important areas are located within ½-mile of all landfill sites and include streams, and streams with aquatic and riparian habitats as listed below. Figures showing the locations and types of ecological areas and corresponding classification descriptions are provided in Attachment 11.	
Site	0	1	2	3	4	5	6	
2.1								Streams, and Streams with Aquatic and Riparian Resources
3.1								Streams with Aquatic and Riparian Resources
3.2								Streams, and Streams with Aquatic and Riparian Resources
3.3								Streams with Aquatic and Riparian Resources
6.1								Streams with Aquatic and Riparian Resources
7.1								Streams

Rating Question in MS Form

2. Significance of Proximity to Nearby Ecologically Important Areas (direct and indirect effects of the location of the landfill relative to ecologically important areas within one-half-mile, with 0 being no potential effect and 6 being potential significant negative effect)

	0	1	2	3	4	5	6
2.1	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3.1	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3.2	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3.3	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
6.1	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
7.1	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Rating Question Output

LAC Member	Site 2.1	Site 3.1	Site 3.2	Site 3.3	Site 6.1	Site 7.1
1	0	0	0	0	0	4
2	1	0	0	0	0	0
3	1	2	6	6	4	2
4	3	2	2	2	2	1
5	0	2	3	4	5	6
6	3	1	1	1	1	2
7	4	3	3	3	3	4
8	2	5	5	5	5	6
Average Rating	1.75	1.88	2.50	2.63	2.50	3.13

*Disclaimer: All values displayed were input were for testing purposes only, do not reflect the views of any of the parties involved, and are not intended to influence scoring.

Subjective Ratings (Reverse Calculation) Example

Proximity to Nearby Ecologically Important Areas (½-mile from landfill site)

0 = no potential effects (a good thing)

6 = potential significant effects (a bad thing)


The rating must then be reversed to be applicable with the rest of the scoring.

Example: Site 2.1 Average Rating = 1.75 (minimal impact, mostly good)

Average Reversed Rating = $6 - 1.75 = 4.25$

4.25 is entered into the scoring formula

Applied Ratings Conversion

LAC Member	Site 2.1	Site 3.1	Site 3.2	Site 3.3	Site 6.1	Site 7.1
1	0	0	0	0	0	4
2	1	0	0	0	0	0
3	1	2	6	6	4	2
4	3	2	2	2	2	1
5	0	2	3	4	5	6
6	3	1	1	1	1	2
7	4	3	3	3	3	4
8	2	5	5	5	5	6
Average Rating	1.75	1.88	2.50	2.63	2.50	3.13
Reverse  6 - A						
Ave. Reversed Rating	4.25	4.13	3.50	3.38	3.50	2.88

*Disclaimer: Numbers are rounded to two decimal places

Score

Proximity to Nearby Ecologically Important Areas (½-mile from landfill site)

Average Weight x Average Reversed Rating (per Site) = Score

Average Weight		60.83				
		X				
Ave. Reversed Rating	Site 2.1	Site 3.1	Site 3.2	Site 3.3	Site 6.1	Site 7.1
	4.25	4.13	3.50	3.38	3.50	2.88
		=				
Score	258.53	250.92	212.91	205.30	212.91	174.89

Evaluation Schedule

- Meeting 6 (Today)
 - Homework: Subjective Criteria Rating for six potential sites by Monday, March 14, 2022
- Meeting 7 (April 4, 2022, Tentative)
 - Scores and Rankings Revealed

Subjective Evaluation and Scoring Methodology Discussion

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Announcements

- Homework: Subjective Ratings
- LAC Meeting #7 – April 4, 2022 (Tentative)

Adjournment

THANK YOU FOR YOUR PARTICIPATION!

